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ABSTRACT

A large data set of student ratings of college teaching was studied to explore previous indications that student ratings are affected by the subject area of instruction. Previous research by Marsh (1984), Feldman (1978), and Cranton and Smith (1986) reported the influence of factors other than instruction. To examine the impact of subject area on ratings, data were analyzed from the IDEA (Instructional Development and Effectiveness Assessment) System Survey Form. Ratings were examined in 44 subject areas from 87,843 college classes. Phase I focused on three summary outcome items: (1) overall instruction; (2) desire to take another course from this instructor; and (3) improved attitude toward course of study. Results were generally similar to Feldman's; economics received the lowest ratings, followed by mathematics and statistics, physics, computer and information studies, and engineering. Higher ratings were reported for fine and applied arts, and nursing. Phase II manipulated the sample to control for sources of contamination; results supported Feldman's patterns. Humanities and arts received higher ratings than social sciences, which received higher ratings than mathematics and science. (Explanations are suggested and a copy of the IDEA Survey Form is appended.) (MAC)

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ARE STUDENT RATINGS OF DIFFERENT ACADEMIC FIELDS DIFFERENT?

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ARE STUDENT RATINGS OF DIFFERENT ACADEMIC FIELDS DIFFERENT?

Many predict that the period between now and 1995 will be one of increasing retrenchment and difficulty for higher education. One likely corollary of this will be increased attention to the process of evaluating faculty for personnel decisions, and that will most likely lead to the increased use of student ratings to judge teaching effectiveness.

Research (e.g., Marsh, 1984) suggests that student ratings generally are both reliable and valid. Nevertheless, there is continuing and appropriate concern about factors other than the teacher's instructional effectiveness that influence, or at least are related to, those ratings. A review of the literature by Feldman (1978) and a more recent study by Cranton and Smith (1986) suggest that academic fields may be one such factor.

Feldman (1978) reviewed eleven studies in the literature which ranked student ratings for different academic fields. After standardizing the rankings for purposes of comparison, he noted that English, humanities, arts, and languages tended to fall in the high and medium rankings with respect to student ratings of teachers. The social sciences, especially political science, sociology, psychology, and economics, tended to fall in the medium or low rankings. Except for certain subareas of the biological sciences, science fields, mathematics and engineering tended to fall more frequently in the lower rankings.

METHOD

To further investigate the possible impact of academic fields on student ratings, this study analyzed data from the IDEA (Instructional Development and Effectiveness Assessment) System developed at Kansas State University. The IDEA Survey Form is attached.

The IDEA data pool contained student ratings for 87,843 classes from more than 300 two-year and four-year institutions of higher education, located primarily in the United States. This pool was divided into the 44 academic fields listed in Table 1; most of the traditional liberal arts and sciences are included as well as many professional and applied fields. The number of classes in each of the academic fields varied considerably, the smallest being 174 classes for Military Science and the largest being 11,394 for Business and Management.

RESULTS -- PHASE I

The first phase of the study analyzed student ratings for the three IDEA outcome or summary items, the ratings that are most relevant for personnel decisions. Table 1 presents the mean scaled scores for each of the three outcome scores when compared to All Courses in the IDEA data pool.

Would Like Instructor Again and **Improved Attitude Toward Field** are single IDEA items, #37 and #38 respectively. **Overall Evaluation (Progress on Relevant Objectives)** is a weighted composite score based on items 21-30. Here students report their perceptions of how much they learned. (See the IDEA Survey Form.) The weights for these ten course objectives are determined by the instructor indicating their importance to the specific course using a 3-point scale: Essential (double weight), Important (single weight), and Of No More Than Minor Importance (zero weight). Thus, the basis of the Overall Evaluation score varies from course to course.

With sample sizes this large, tests of statistical significance are not very useful because even very small differences are statistically significant. Differences between means have been presented in Table 1 to make the variations among academic fields more apparent. Fields with pluses tend to receive higher ratings than the data pool in general; minuses indicate lower ratings. As a rule of thumb, we suggest that differences of three points or greater are of practical significance.

When considering Overall Evaluation scores, Economics received the lowest ratings, followed by Math and Statistics, Physics, Computer and Information Studies, and Engineering. On the other hand, the Fine and Applied Arts, Art, and Nursing received relatively higher scores. These results generally parallel the Feldman (1978) review.

The IDEA System assumes that students' progress ratings are influenced by both the students' desire to take the course and the size of the class. Table 2 presents essentially the same data as Table 1, except that the variables of Level of Student Motivation (based on item #36) and Class Size were controlled for. Here, the lowest ratings were received in Data Processing Technology, Computer and Information Studies, and Engineering Technology; the highest ratings in Speech, English, Communications, and Letters-Humanities.

RESULTS -- PHASE II

Although the results of Phase I indicated that there were practically significant differences among ratings of many academic fields, the data were subject to varying sources of contamination. The data may reflect institutional and other sampling variations as well as differences among academic fields.

In an attempt to partially control for this, we decided to analyze eleven academic fields mentioned by Feldman (1978): art, English, foreign language, and humanities; economics, political science, psychology, and sociology; and biological sciences, mathematics, and engineering. The various physical sciences were omitted because in the IDEA data pool they are divided into specific disciplines, e.g., chemistry, physics, etc. Accounting was added because so many students are currently majoring in business.

Twenty-two institutions that had used the IDEA system extensively in many different academic fields were identified and a frequency count was obtained for the number of classes in each of the 12 fields for each institution. Finally, only freshman and sophomore courses were

selected, since we reasoned that these would yield a more homogenous sample. Engineering and political science courses were dropped because of insufficient data. We also dropped six institutions that did not have enough course across the majority of academic fields.

The result was data from 16 institutions in 10 academic fields. Ten courses were randomly selected for each cell. The largest cell originally included 299 courses. Where there were fewer than 10 courses in a cell, that cell was not included in the analyses; so not every institution or every field is included in every analysis. The number of institutions per field ranged from 12 to 16, with a mean of 13.4. The number of fields per institution ranged from 7 to 10, with a mean of 9.0. This data pool was then reasonably representative of the various academic fields, and minimally influenced by the institutions which contributed to the different fields or by the number of classes in a given field.

We then performed one-way analyses of variance of the 10 academic fields for the 38 individual IDEA items and the Overall Evaluation score. We performed an analysis of covariance on the same items, controlling for student motivation and class size. All of the one-way analyses of both variance and covariance were significant at the .0001 level, supporting the conclusion that some of the real differences in student ratings are related to academic field and not simply due to sampling differences of the institutions and departments which happened top use the IDEA System. The means are presented in Tables 3 and 4.

We then performed omega squared analyses to see what proportion of the variance was explained by the differences across these ten academic fields. In Table 3, the omega squares range from .02 to .50. In Table 4, where the means were adjusted for student motivation and class size, the omega squares range from .14 to .58. This indicates that there still were considerable differences among these academic fields which were not due to differences in motivation and size. Although the omega squares in Table 4 tend to be absolutely larger than those in Table 3, they should not be compared directly because the amount of variation left unexplained had been decreased.

The IDEA means generally follow the pattern indicated by Feldman (1978): humanities and arts receive higher ratings than social sciences, which in turn receive higher ratings than math and science. However, there were some interesting variations within each of the three academic field groups. If the All Course means in Table 3 are subtracted from the respective means adjusted for motivation and size in Table 4, the differences for the Arts and Foreign Languages tend to be negative; i.e., these All Course ratings tend to benefit from having motivated students and/or small classes. English, and to a lesser extent Letters-Humanities, tend to show positive differences which suggests that these courses were more effective despite less motivated and/or larger classes. Similarly, Psychology tends to have negative differences while Economics shows positive differences. Sociology seems to epitomize the entire data base with respect to motivation and size; there were no differences between any of the 39 items in the two tables.

If one rank orders the Overall Evaluation scores for the ten academic fields in Table 3 and for the respective fields in Table 1,

the Spearman $\underline{r}$ = .99; similarly for Tables 2 and 4, Spearman $\underline{r}$ = .96. All ten fields in Tables 1 and 2 included well over 1,000 classes. This suggests that the original IDEA pool may not have been unduly contaminated by institutional idiosyncracies for the ten fields that we analyzed.

DISCUSSION

We interpret these results as being generally consistent with Feldman(1978), that there are differences in the student ratings of different academic fields. Most of the studies reviewed by Feldman were "user" samples; that is, they were not samples selected to be representative of higher education but were based upon data from clients who happened to use a given system. By selecting data from institutions that broadly represented the ten academic fields and controlling for the number of classes in each cell, we conclude that the differences in student ratings found in this study are not solely reflections of differences among the institutions or courses that happened to use the IDEA student rating system.

Even after student motivation and class size are controlled for, there still remain practically significant differences, at least across the ten academic fields we studied. These differences deserve further study.

Regarding items 21-30 in Tables 3 and 4, we did not control for the weighting of importance assigned to these course objectives by the individual instructors. This needs to be done. English, for example, received the highest ratings on item 29, "Developing skill in expressing oneself orally or in writing". This is undoubtedly due in part to the fact that more English classes attempt to teach communication skills. Similarly, humanities courses generally tended to receive higher ratings on item 28 which deals with general liberal education. By controlling for the instructor selection of various course objectives, we will be able to see if there are any differences among academic fields in the achievement of their chosen objectives.

One possible hypothesis regarding variations in the student ratings is that academic fields which are more <u>quantitative</u> or require more mathematical aptitude tend to receive lower ratings. In an earlier analysis of some IDEA data, "quantitative" business courses (business statistics, accounting, economics, and finance) tended to receive lower ratings than "qualitative" business courses (management, marketing, and personnel).

Another hypothesis would be that academic fields that receive lower ratings are more <u>sequential</u>, i.e., each course builds upon the preceding one. If a student does not do well in Course 101, he or she is not likely to do well in Course 102, etc. Math and science courses would fit such a pattern, but so would foreign language courses. On the other hand, many social science and humanities courses are not sequential; at least, a student can do well in Abnormal Psychology even though he or she did not do well in General Psychology.

Undoubtedly there are many other possible hypotheses relating to student characteristics, course characteristics and/or instructor

characteristics. One obvious explanation for some of the differences in the student ratings of different academic fields would be that some fields are not as well taught as others. (See Note below.)

We must continue to develop student rating systems so that they maximally reflect the instructor's teaching effectiveness, and minimally reflect everything else. Further study of the relationship of academic fields to student ratings of teaching is essential.

[**Note:** At the presentation itself participants suggested three additional hypotheses that might account for the different ratings of different academic fields: (1) that different majors rate differently; (2) that students have different models of what they consider to be effective teaching; and (3) that students with different learning styles rate differently.]

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TABLE 1
IDEA Item Differences Between Means for All Course Scaled Scores
for Forty-Four Academic Fields and Entire Data Base

ACADEMIC FIELD	N	Overall Evaluation	Would Like Instr. Again	Improved Attitude
ENTIRE DATA BASE	87,843	53.4	50.5	50.8
ACCOUNTING	2,429	-2.1	-1.8	-4.0
AG & NAT. RESOURCES	632	-1.0	-0.8	0.7
ARCH. & ENV. DESIGN	352	1.6	-0.7	2.5
AREA STUDIES	183	0.5	0.9	0.4
ART	1,372	4.4	2.7	5.0
BIOLOGICAL SCIENCE	2,103	-0.7	-0.9	0.7
BUS. & COMMERCE TECH.(*)	478	-0.7	1.4	1.1
BUS. & MANAGEMENT	11,394	-1.8	-1.6	-1.3
CHEMISTRY	1,525	-2.4	-1.8	-4.5
COMMUNICATIONS	1,793	2.3	-0.1	-0.8
COMPUT. & INFO. STUDY	1,480	-3.1	-3.3	-2.2
DATA PROC. TECH. (*)	186	-2.2	-1.5	0.5
ECONOMICS	1,989	-4.0	-2.6	-3.7
EDUCATION	6,996	3.1	1.6	3.9
ENGINEERING	1,749	-3.1	-2.3	-1.4
ENGINEERING TECH.	313	-2.4	-0.0	1.4
ENGLISH LANG. & LIT.	5,733	1.8	0.0	-3.2
FINE & APPLIED ARTS	1,330	5.3	2.9	4.6
FOREIGN LANGUAGE	1,761	1.5	4.4	1.8
HEALTH PROFESSION	1,798	1.4	0.0	2.6
HEALTH SERVICE (*)	222	3.7	2.0	6.6
HISTORY	2,283	-2.1	0.7	-0.5
HOME ECONOMICS	1,174	1.8	0.3	3.2
INTERDISCIP. STUDIES (*)	2,598	-0.8	-0.6	-1.3
LAW	475	-1.5	-0.3	-0.5
LETTERS-HUMANITIES	1,880	1.6	-0.4	-2.5
LIBRARY SCIENCES	279	1.5	0.3	2.2
MATH. & STATISTICS	4,120	-3.9	-1.0	-5.6
MILITARY SCIENCES	174	1.0	2.9	2.2
MUSIC	1,380	3.8	0.8	2.7
NURSING	2,059	4.0	1.7	3.8
PHYSICAL EDUCATION	2,200	0.1	2.6	2.9
PHYSICAL SCIENCE	1,133	-2.4	-1.6	-1.9
PHYSICS	784	-3.8	-3.7	-5.8
POLITICAL SCIENCE	1,448	-1.2	0.4	0.3
PSYCHOLOGY	4,133	0.7	0.4	1.2
PUBLIC AFFAIRS & SERV.	676	0.9	1.4	2.8
SECRETARIAL STUDIES	555	2.0	2.8	2.8
SOCIAL SCIENCE	3,010	-1.4	0.3	0.4
SOCIAL WORK & SERVICE	761	3.3	0.5	3.2
SOCIOLOGY	1,931	-1.3	-0.5	-0.0
SPEECH	874	3.2	0.3	0.2
THEOLOGY & RELIGION	2,185	-0.1	0.7	2.3
VO-TECH EDUCATION	583	2.6	3.2	5.2

(*) -- Indicates 2-year Program

TABLE 2
IDEA Item Difference Between Means for Similar Course Scaled Scores for Forty-Four Academic Fields and Entire Data Base

ACADEMIC FIELD	N	Overall Evaluation	Would Like Instr. Again	Improved Attitude
ENTIRE DATA BASE	87,843	53.1	50.1	50.3
ACCOUNTING	2,429	-2.6	-2.9	-6.7
AG & NAT. RESOURCES	632	-1.1	-0.9	0.9
ARCH. & ENV. DESIGN	352	-0.4	-3.8	-0.9
AREA STUDIES	183	1.0	1.5	0.9
ART	1,372	1.5	-0.4	1.4
BIOLOGICAL SCIENCE	2,103	-0.7	-1.1	0.5
BUS. & COMMERCE TECH.(*)	478	-1.8	0.3	-0.4
BUS. & MANAGEMENT	11,394	-1.3	-1.4	-1.3
CHEMISTRY	1,525	-0.6	0.0	-3.1
COMMUNICATIONS	1,793	3.3	1.4	1.4
COMPUT. & INFO. STUDY	1,480	-4.5	-5.7	-5.6
DATA PROC. TECH. (*)	186	-5.6	-6.0	-5.1
ECONOMICS	1,989	-1.4	0.2	-0.4
EDUCATION	6,996	2.8	1.2	4.1
ENGINEERING	1,749	-3.4	-2.7	-2.0
ENGINEERING TECH.	313	-4.4	-2.1	-1.1
ENGLISH LANG. & LIT.	5,733	3.1	2.2	-0.3
FINE & APPLIED ARTS	1,330	2.7	0.3	1.4
FOREIGN LANGUAGE	1,761	-1.4	1.8	-2.6
HEALTH PROFESSION	1,798	0.5	-1.3	1.5
HEALTH SERVICE (*)	222	0.1	-2.5	2.3
HISTORY	2,283	-1.2	2.1	1.0
HOME ECONOMICS	1,174	0.7	-1.1	2.0
INTERDISCIP. STUDIES (*)	2,598	-0.1	0.2	-0.1
LAW	475	-1.7	-0.7	-1.3
LETTERS-HUMANITIES	1,880	3.3	1.7	-0.1
LIBRARY SCIENCES	279	0.6	-0.8	1.2
MATH. & STATISTICS	4,120	-2.2	0.9	-4.0
MILITARY SCIENCES	174	-0.9	1.2	-0.5
MUSIC	1,380	2.3	-0.6	0.9
NURSING	2,059	1.6	-1.4	0.2
PHYSICAL EDUCATION	2,200	-1.6	1.1	0.9
PHYSICAL SCIENCE	1,133	-1.0	-0.2	-0.7
PHYSICS	784	-1.3	-0.8	-2.9
POLITICAL SCIENCE	1,448	-0.6	1.1	1.1
PSYCHOLOGY	4,133	0.2	-0.5	0.1
PUBLIC AFFAIRS & SERV.	676	0.1	0.5	2.0
SECRETARIAL STUDIES	555	-0.6	0.1	-1.0
SOCIAL SCIENCE	3,010	-0.6	1.3	1.8
SOCIAL WORK & SERVICE	761	2.6	-0.3	2.8
SOCIOLOGY	1,931	-0.5	0.3	1.0
SPEECH	874	4.0	1.3	2.2
THEOLOGY & RELIGION	2,185	-0.3	0.5	2.6
VO-TECH EDUCATION	583	0.9	1.6	3.7

(*) -- Indicates 2-year Program

Table 3
IDEA Item Means for Ten Academic Fields

IDEA Item	Academic Fields										
	Art	Eng.	Lang.	Lett.	Psy.	Soc.	Econ.	Acct.	Bio.	Math	ω^2
1.	3.9	4.3	4.1	4.3	4.0	4.3	3.7	3.8	3.5	3.7	.15
2.	3.8	3.8	4.0	3.9	3.7	3.7	3.4	3.6	3.5	3.7	.07
3.	4.2	4.4	4.2	4.4	4.2	4.4	3.9	3.9	3.8	3.9	.14
4.	4.5	4.3	4.6	4.5	4.4	4.4	4.2	4.2	4.4	4.3	.06
5.	3.8	3.6	3.8	3.7	3.6	3.6	3.3	3.5	3.5	3.7	.06
(6.)	1.7	1.8	1.7	1.8	2.2	2.1	2.2	2.0	2.5	1.9	.16
7.	4.0	4.1	4.4	4.1	4.0	4.0	3.7	3.8	3.9	3.9	.07
8.	4.2	4.0	4.2	4.1	4.1	4.1	4.0	4.1	4.2	3.9	.02
(9.)	2.0	2.0	1.7	2.0	2.1	2.1	2.4	2.2	2.2	2.1	.08
10.	4.0	3.9	4.1	4.0	4.0	4.0	3.8	3.9	4.0	3.8	.04
11.	3.8	3.6	3.7	3.5	3.2	3.2	3.0	3.1	3.1	3.2	.19
(12.)	1.6	1.6	1.6	1.8	2.2	2.1	2.5	2.0	2.3	1.9	.21
13.	3.8	4.0	3.9	4.1	3.9	4.0	3.6	3.7	3.6	3.7	.11
14.	3.6	3.7	3.9	3.7	3.7	3.6	3.5	3.5	3.6	3.6	.03
15.	3.4	3.4	3.4	3.7	3.3	3.3	3.2	3.1	3.5	3.5	.06
16.	4.1	4.0	4.2	4.1	4.0	4.0	3.8	4.0	4.1	4.1	.02
17.	4.0	4.0	4.2	4.0	4.0	4.0	3.7	3.8	4.0	4.0	.03
18.	3.7	3.8	4.0	4.0	4.4	4.4	4.2	4.0	4.1	4.1	.22
(19.)	1.6	1.7	1.6	1.8	2.2	2.1	2.4	2.0	2.6	2.6	.22
20.	4.0	3.7	3.9	3.9	3.9	3.9	3.4	3.2	3.7	3.7	.20
21.	3.7	3.4	3.8	3.4	3.7	3.6	3.5	3.6	3.9	3.9	.09
22.	3.7	3.4	3.6	3.6	3.7	3.6	3.6	3.7	3.7	3.7	.04
23.	3.4	3.4	3.2	3.8	3.8	3.6	3.5	3.5	3.4	3.7	.11
24.	3.8	3.4	3.5	3.4	3.5	3.5	3.3	3.6	3.6	3.4	.07
25.	3.7	3.1	3.0	3.2	3.6	3.6	3.2	3.4	3.6	3.1	.21
26.	4.2	3.8	3.5	3.6	3.3	3.3	2.8	2.9	3.0	3.0	.39
27.	3.8	3.6	3.6	3.6	3.6	3.5	3.1	3.4	3.5	3.4	.10
28.	4.1	3.6	3.9	3.5	3.0	3.2	2.6	2.4	3.2	2.8	.50
29.	3.1	4.0	3.8	3.7	3.1	3.3	2.6	2.4	2.7	2.5	.48
30.	3.9	3.5	3.4	3.7	3.7	3.6	2.9	2.9	3.1	2.9	.32
31.	2.1	3.3	2.7	3.2	3.4	3.4	3.4	3.3	3.4	2.4	.38
32.	3.4	3.2	3.3	2.9	2.8	2.8	2.8	3.7	3.2	3.5	.22
33.	3.0	3.1	3.4	3.4	3.2	3.1	3.6	3.6	3.7	3.5	.24
34.	3.8	3.7	3.9	3.7	3.7	3.6	3.6	3.7	3.8	3.6	.04
35.	3.6	3.5	3.4	3.4	3.4	3.2	3.5	3.8	3.8	3.5	.10
36.	4.0	3.2	4.0	3.3	3.7	3.5	3.1	3.7	3.6	3.3	.21
37.	4.1	3.8	4.2	3.9	3.9	3.8	3.5	3.7	3.8	3.8	.06
38.	4.2	3.6	4.0	3.7	3.9	3.8	3.4	3.5	3.8	3.5	.14
OE	58.9	55.2	54.6	55.4	54.1	52.7	47.6	50.0	52.7	49.9	.12

Table 4
IDEA Item Means for Ten Academic Fields
Adjusted for Student Motivation
and Class Size

IDEA Item	Academic Fields										
	Art	Eng.	Lang.	Lett.	Psy.	Soc.	Econ.	Acct.	Bio.	Math	ω^2
1.	3.7	4.3	3.9	4.3	4.0	4.3	3.9	3.7	3.6	3.8	.27
2.	3.6	3.9	3.8	4.0	3.6	3.7	3.6	3.6	3.6	3.8	.21
3.	4.1	4.4	4.1	4.4	4.2	4.4	4.0	3.8	3.9	4.0	.26
4.	4.4	4.4	4.4	4.6	4.3	4.4	4.3	4.2	4.4	4.4	.22
5.	3.6	3.7	3.6	3.8	3.6	3.6	3.5	3.4	3.5	3.7	.22
(6.)	1.8	1.6	1.8	1.7	2.2	2.1	2.1	2.0	2.4	1.9	.20
7.	3.8	4.2	4.2	4.2	3.9	4.0	3.8	3.8	3.9	3.9	.19
8.	4.0	4.1	4.0	4.1	4.0	4.1	4.2	4.0	4.2	4.0	.21
(9.)	2.2	1.9	1.9	2.0	2.2	2.1	2.2	2.2	2.2	2.0	.24
10.	3.9	4.0	3.9	4.0	3.9	4.0	4.0	3.9	4.0	3.8	.21
11.	3.6	3.7	3.5	3.6	3.1	3.2	3.2	3.0	3.2	3.2	.29
(12.)	1.7	1.6	1.8	1.8	2.2	2.1	2.3	2.1	2.3	1.8	.28
13.	3.7	4.1	3.8	4.2	3.9	4.0	3.8	3.7	3.6	3.7	.18
14.	3.5	3.8	3.7	3.8	3.6	3.6	3.6	3.5	3.6	3.7	.16
15.	3.2	3.5	3.2	3.7	3.3	3.3	3.4	3.1	3.5	3.3	.22
16.	4.0	4.1	4.0	4.1	4.0	4.0	4.0	4.0	4.1	4.0	.14
17.	3.9	4.1	4.0	4.0	3.9	4.0	3.9	3.8	4.0	4.0	.16
18.	3.6	3.9	3.9	4.1	4.3	4.4	4.3	4.0	4.1	3.5	.32
(19.)	1.7	1.6	1.8	1.8	2.3	2.1	2.3	2.0	2.5	1.8	.27
20.	3.8	3.9	3.6	4.0	3.8	3.9	3.6	3.2	3.7	3.3	.41
21.	3.5	3.5	3.6	3.5	3.6	3.6	3.7	3.6	3.9	3.7	.25
22.	3.6	3.5	3.4	3.7	3.7	3.6	3.7	3.6	3.7	3.8	.21
23.	3.2	3.6	3.0	3.9	3.7	3.6	3.7	3.5	3.4	3.7	.29
24.	3.6	3.6	3.2	3.5	3.5	3.5	3.5	3.5	3.6	3.5	.28
25.	3.5	3.2	2.8	3.3	3.6	3.6	3.3	3.3	3.6	3.2	.35
26.	4.0	3.9	3.3	3.7	3.2	3.3	3.0	2.8	3.0	3.1	.52
27.	3.6	3.7	3.4	3.7	3.5	3.5	3.3	3.3	3.5	3.5	.30
28.	4.0	3.7	3.7	3.6	3.0	3.2	2.8	2.3	3.2	2.8	.58
29.	2.9	4.1	3.6	3.8	3.1	3.3	2.8	2.4	2.7	2.6	.55
30.	3.6	3.7	3.1	3.7	3.6	3.6	3.1	2.8	3.1	3.0	.51
31.	2.0	3.4	2.7	3.2	3.4	3.4	3.4	3.3	3.3	2.4	.38
32.	3.3	3.2	3.2	2.9	2.8	2.8	2.9	3.7	3.3	3.5	.24
33.	3.0	3.1	3.3	3.4	3.2	3.1	3.7	3.6	3.7	3.5	.24
34.	3.7	3.8	3.7	3.7	3.6	3.6	3.7	3.6	3.8	3.7	.22
35.	3.4	3.6	3.3	3.4	3.3	3.2	3.6	3.8	3.8	3.6	.19
36.	—	—	—	—	—	—	—	—	—	—	—
37.	3.8	4.0	3.9	4.0	3.8	3.8	3.8	3.7	3.7	3.9	.28
38.	4.0	3.8	3.7	3.8	3.8	3.8	3.7	3.4	3.8	3.7	.49
OE	55.6	57.3	51.4	56.5	53.1	52.7	50.6	49.0	52.4	51.5	.33

IDEA SURVEY FORM -- STUDENT REACTIONS TO INSTRUCTION AND COURSES

Your thoughtful answers to these questions will provide helpful information to your instructor.

• Describe the frequency of your instructor's teaching procedures, using the following code:

1—Hardly Ever 3—Sometimes
2—Occasionally 4—Frequently 5—Almost Always

The Instructor:

1. Promoted teacher-student discussion (as opposed to mere responses to questions).
2. Found ways to help students answer their own questions.
3. Encouraged students to express themselves freely and openly.
4. Seemed enthusiastic about the subject matter.
5. Changed approaches to meet new situations.
6. Gave examinations which stressed unnecessary memorization.
7. Spoke with expressiveness and variety in tone of voice.
8. Demonstrated the importance and significance of the subject matter.
9. Made presentations which were dry and dull.
10. Made it clear how each topic fit into the course.
11. Explained the reasons for criticisms of students' academic performance.
12. Gave examination questions which were unclear.
13. Encouraged student comments even when they turned out to be incorrect or irrelevant.
14. Summarized material in a manner which aided retention.
15. Stimulated students to intellectual effort beyond that required by most courses.
16. Clearly stated the objectives of the course.
17. Explained course material clearly, and explanations were to the point.
18. Related course material to real life situations.
19. Gave examination questions which were unreasonably detailed (picky).
20. Introduced stimulating ideas about the subject.

• On each of the objectives listed below, rate the progress you have made in this course compared with that made in other courses you have taken at this college or university. In this course my progress was:

1—Low (lowest 10 percent of courses I have taken here)
2—Low Average (next 20 percent of courses)
3—Average (middle 40 percent of courses)
4—High Average (next 20 percent of courses)
5—High (highest 10 percent of courses)

Progress on:

21. Gaining factual knowledge (terminology, classifications, methods, trends).
22. Learning fundamental principles, generalizations, or theories.
23. Learning to apply course material to improve rational thinking, problem-solving and decision-making.
24. Developing specific skills, competencies and points of view needed by professionals in the field most closely related to this course.
25. Learning how professionals in this field go about the process of gaining new knowledge.
26. Developing creative capacities.
27. Developing a sense of personal responsibility (self-reliance, self-discipline).
28. Gaining a broader understanding and appreciation of intellectual-cultural activity (music, science, literature, etc.).
29. Developing skill in expressing myself orally or in writing.
30. Discovering the implications of the course material for understanding myself (interests, talents, values, etc.).

• On the next four questions, compare this course with others you have taken at this institution, using the following code:

1—Much Less than Most Courses
2—Less than Most
3—About Average
4—More than Most
5—Much More than Most

The Course:

31. Amount of reading.
32. Amount of work in other (non-reading) assignments.
33. Difficulty of subject matter.
34. Degree to which the course hung together (various topics and class activities were related to each other).

• Describe your attitudes toward and behavior in this course, using the following code:

1—Definitely False
2—More False than True 4—More True than False
3—In Between 5—Definitely True

Self-rating:

35. I worked harder on this course than on most courses I have taken.
36. I had a strong desire to take this course.
37. I would like to take another course from this instructor.
38. As a result of taking this course, I have more positive feelings toward this field of study.
39. Leave this space blank. Continue with question A.

A. Blacken space number 4 on the Response Card.

• For the following six questions, B-G, describe your attitudes, feelings, and behaviors by filling in the appropriate space:

1—Definitely False
2—More False than True 4—More True than False
3—In Between 5—Definitely True

B. In general, I like my instructors.
C. I try very hard to learn in all my courses.
D. I really wanted to take this course regardless of who taught it.
E. I really wanted to take a course from this instructor.
F. In general, I am a good student.
G. In general, I enjoy my courses.

If your instructor has extra questions, answer them in the space designated on the Response Card.

Your comments are invited on how the instructor might improve this course or teaching procedures. Use the back of the Response Card (unless otherwise directed).

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